

Datasheet for ABIN3132968

GLUT4 Protein (AA 1-509) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	GLUT4 (SLC2A4)
Protein Characteristics:	AA 1-509
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GLUT4 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	<p> MPSGFQQIGS DDGEPPRQRV TGTLVLAVFS AVLGSLQFGY NIGVINAPQK VIEQSYNATW LGRQGPGGPD SIPQGTLTTL WALSVAFSV GGMISSFLIG IISQWLGRKR AMLANNVLAV LGGALMGLAN AAASYEILIL GRFLIGAYSG LTSGLVPMYV GEIAPTHLRG ALGTNLQLAI VIGILVAQVL GLESM LGTAT LWPLLLALT V LPALLQLILL PFCPESPRYL YIIRNLEGPA RKSLKRLTGW ADVSDALAE L KDEKRKLERE RPMSLLQLLG SRTHRQPLII AVVLQLSQQL SGINAVFYYS TSIFESAGVG QPAYATIGAG VVNTVFTLVS VLLVERAGR R TLHLLGLAGM CGCAILMTVA LLLLRVPAM SYVSIVAIFG FVAFFEIGPG PIPWFIVAEL FSQGPRPAAM AVAGFSNWTC NFIVGMGFQY VADAMGPYVF LLFAVLLLG FIFTFLKVPE TRGRTFDQIS AAFRRTPSLL EQEVKPSTEL EYLGPDEND </p> <p>Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you</p>

have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

Purity:

> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade:

custom-made

Target Details

Target:	GLUT4 (SLC2A4)
Alternative Name:	Slc2a4 (SLC2A4 Products)
Background:	<p>Solute carrier family 2, facilitated glucose transporter member 4 (GT2) (Glucose transporter type 4, insulin-responsive) (GLUT-4),FUNCTION: Insulin-regulated facilitative glucose transporter, which plays a key role in removal of glucose from circulation (PubMed:26240143, PubMed:26629404). Response to insulin is regulated by its intracellular localization: in the absence of insulin, it is efficiently retained intracellularly within storage compartments in muscle and fat cells (PubMed:26240143, PubMed:26629404). Upon insulin stimulation, translocates from these compartments to the cell surface where it transports glucose from the extracellular milieu into the cell (PubMed:26240143, PubMed:26629404).</p> <p>{ECO:0000269 PubMed:26240143, ECO:0000269 PubMed:26629404}.</p>
Molecular Weight:	54.8 kDa
UniProt:	P14142
Pathways:	AMPK Signaling , Carbohydrate Homeostasis , Proton Transport , Brown Fat Cell Differentiation , Warburg Effect

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.</p> <p>During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!</p>
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months